

# Can Twitter be used to Enhance Student Engagement and Learning in Medical Education?

Catherine Hennessy & Scott Border

# BM5 Curriculum Map

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Foundations of Medicine	ON	S	Nervous & Locomotor 1	Respiratory, Cardio & Renal 1	ON	S
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Foundations of Medicine	REVISION	EXAMS	Nervous & Locomotor 1	Respiratory, Cardio & Renal 1	REVISION	EXAMS
Medicine In Practice 1			Medicine In Practice 1			
SSU1 - Health Improvement			SSU2 - Medical Humanities			

2

Respiratory, Cardio & Renal 2	Nervous & Locomotor 2	REVISION	EXAMS	GI	Endocrinology & the Lifecycle	REVISION	EXAMS	Research for Medicine & Health
Medicine in Practice 2/HCA placement	Medicine in Practice 2/HCA placement							
Research for Medicine & Health	Research for Medicine & Health							

Clinical Ethics & Law	Sci	pra	RE	EX
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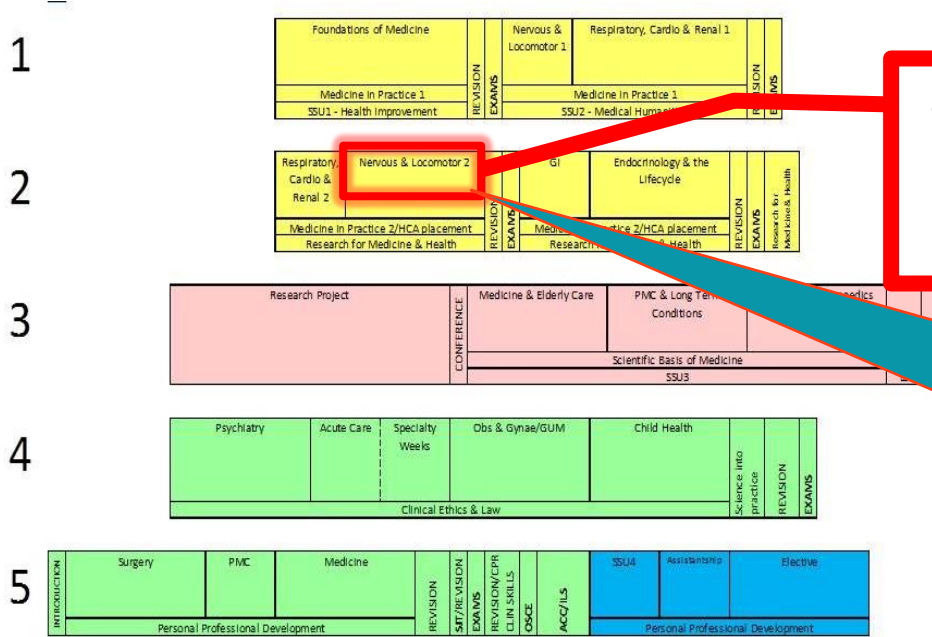
5

INTRODUCTION	Surgery	PMC	Medicine	REVISION	SIT/REVISION EXAMS	REVISION/CPR CLIN SKILLS	OSCE	ACC/ILS	SSU4	Assistants	Elective
	Personal Professional Development								Personal Professional Development		

# Background...

.....Why introduce Twitter?

# Nervous & Locomotor 2 (NLM2): A Notoriously Difficult Module



Neuroanatomy, Head and Neck anatomy (8 weeks)

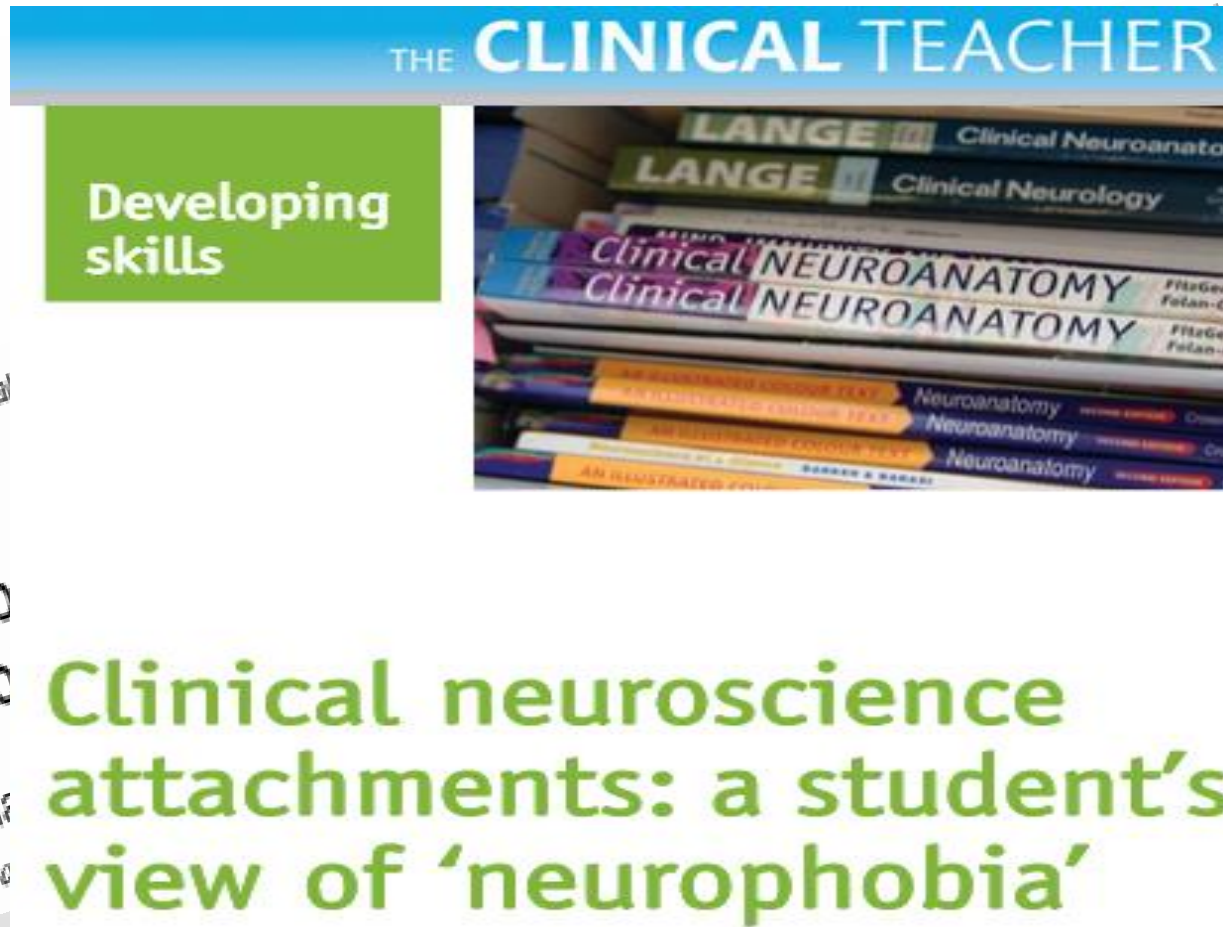
“Rumours that it’s really hard” – current Year 2 student

Despite high levels of difficulty and complexity, reduced curriculum time has been reported in USA since 2002 <sup>1</sup> and in UK/Ireland since before 1999 <sup>2</sup>.

Result = Anxiety amongst students

# Neurophobia

“A fear of neural sciences and clinical neurology” <sup>3</sup>



James Giles, Fourth Year Medical Student, The University of Manchester, UK

11/1, 1488-1931, 2007, 01911.x

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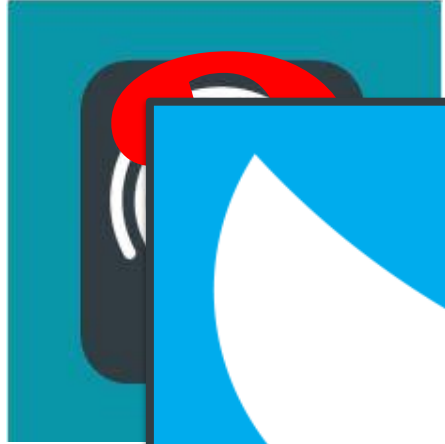
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# Methods of supporting students during NLM2

## Podcasts



To reduce  
anxiety

Online  
student  
theses

## Discussion boards



ent

atic<sup>8</sup>

head & neck anatomy  
ers in my individual  
on some of the same  
a topic. It is a  
es answers are not  
enjoyable way of

**#NLM2SOTON**

Twitter as a  
learning tool in  
medical  
education<sup>9</sup>

# Aims

To investigate if:

1. Twitter can be used to create an informal online community for neuroanatomy discussions between students and teachers.
2. Twitter can be conducive to: learning, increased student engagement and relieving students' anxieties.



# Method....

.....what did we do?



# Twitter hashtag construction and analysis

## Pre-module

#NLM2soton creation

Widget creation on Blackboard (VLE)

## During module

#NLM2soton launched to 197  
Year 2 students

#NLM2soton feed monitored by teachers

## Ethics approval

## Post-module

**Tweet themes  
identified**

**Survey instrument**  
#NLM2soton frequency of use vs Exam results  
Opinions of usefulness

**Focus group**  
1 hour  
11 NLM2 students

# Results.....

# Common themes of tweets identified

The Goat and 3 others follow  
Hayley Magill @hayleymagill · Jan 18



**Lydia Edge** @alwaysshelenaist

11 Nov

@ScottBorder1 @CathHennessy Posterior auricular branch of the facial nerve- is it a motor branch? It's not in the TZBMC acronym!  
#nlm2soton

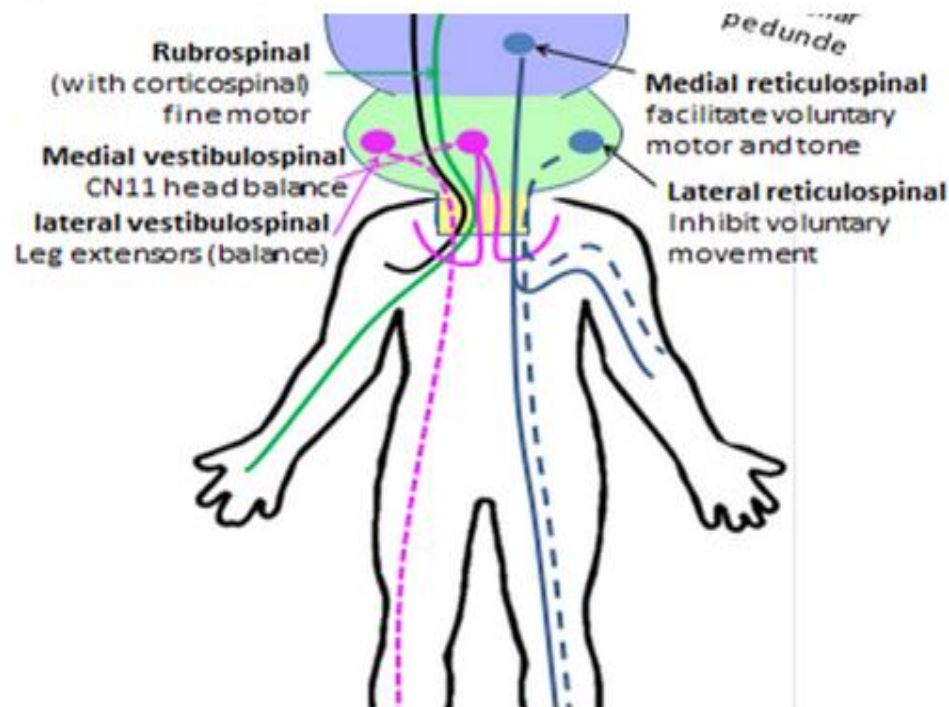


#NLM2soton



**Ollie Cole** @olicoley · Jan 8

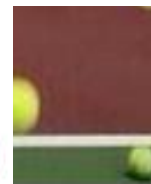
For the more visual #NLM2soton learners - sorry it has come out a bit squished!



2

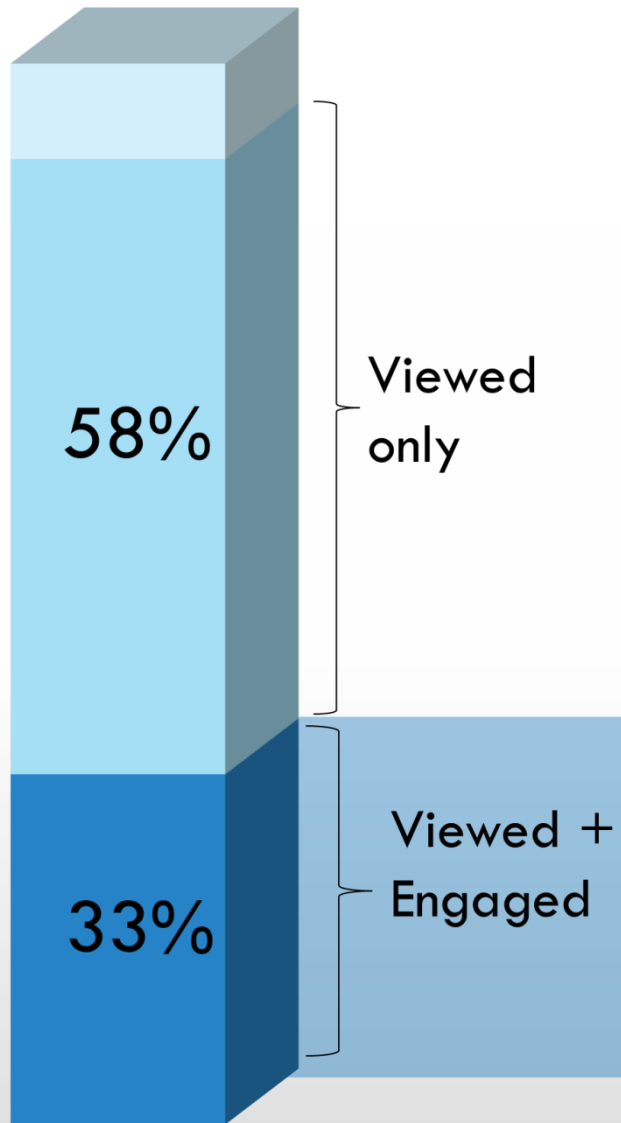


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# Questionnaire Responses



Response rate = 78%

Easier  
communication  
with teachers  
80% agreed

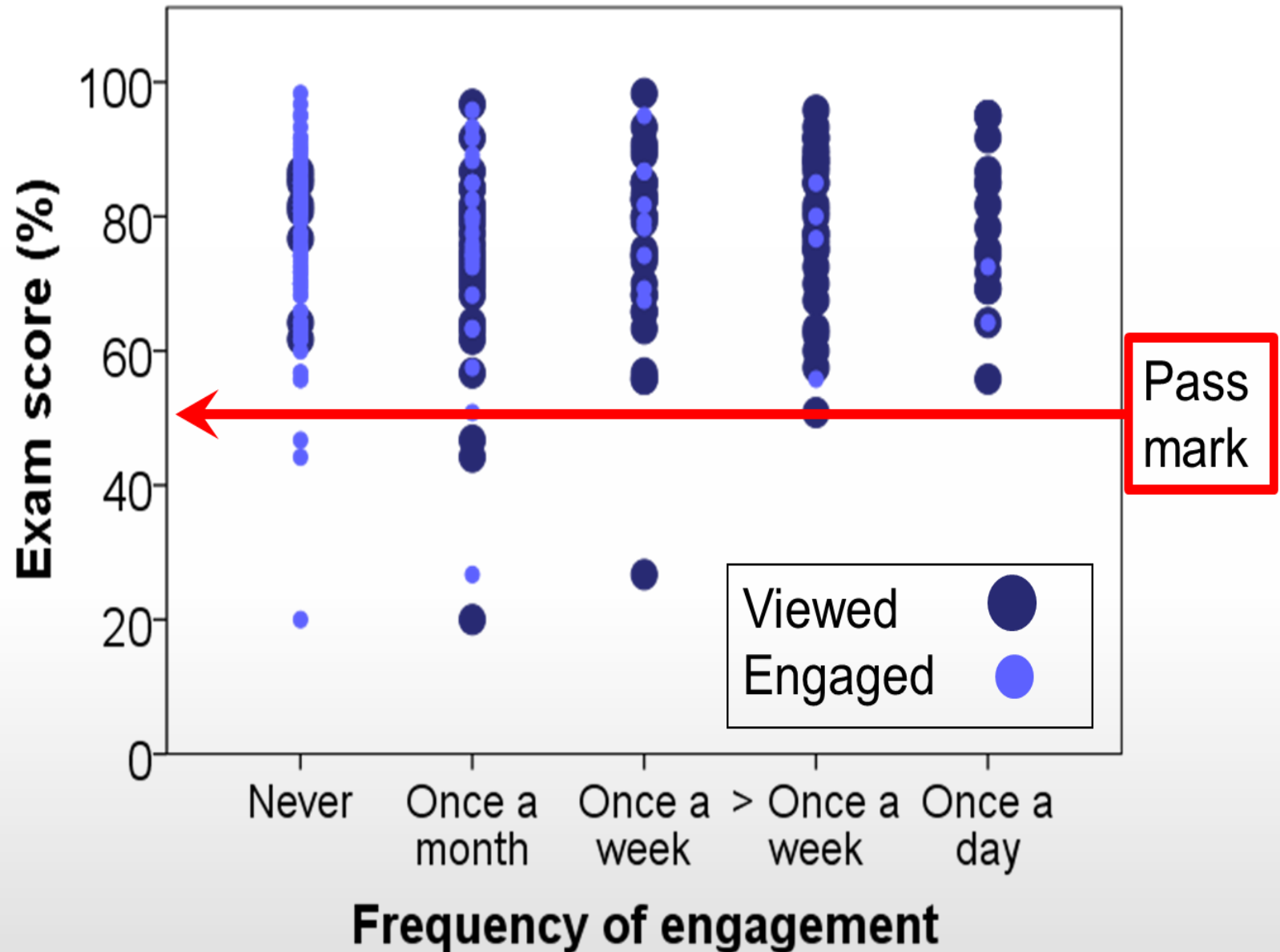
Useful learning  
neuroanatomy  
69% agreed

Receiving  
feedback  
to assist  
learning  
67% agreed

Building  
engagement  
75% agreed

Increasing  
morale  
72% agreed

# Frequency of #NLM2soton use vs exam scores



No significant relationship was found with Spearman's correlation coefficient (n=119)

# Basic thematic analysis of focus group responses

1. Useful for learning & encouraged student engagement

*“stuff that you hadn’t thought about revising you could see that others had been .....that reminded you to revise it”*



# Basic thematic analysis of focus group responses

2. Facilitated communication with lecturers & useful for receiving feedback

*“responses from lecturers...were quick and straight to the point...I found that really useful”*

# Basic thematic analysis of focus group responses

## 3. Built a supportive network & reduced student anxieties

*“the barriers it has broken down.....was the module that people most enjoyed during revision and it did become more interesting....there was more interaction which came from Twitter.....it built a strong relationship between us and the NLM2 teachers”*

# Conclusions

# The evidence suggests that Twitter...

**DID NOT** affect exam performance

**HOWEVER** it **DID** facilitate student engagement with the NLM2 anatomy course

**Created an informal online community between students and teachers**

Sharing learning ideas

Receiving quick & concise feedback

Lecturers more approachable

**Relieved anxieties and increased neuroanatomy enjoyment**

Broke down barriers

Banter increased morale

Created a relaxed atmosphere

**Created a supportive network for learning**

# We found...

Ultimately, Twitter enhanced the student learning experience

“rumours that it’s really hard and it wasn’t really that hard in the end...Twitter helped to dispel some of the rumours that NLM2 was so hard”

NLM2 student module evaluation score out of 5

3.6



2014

4.1



2015



# Recommendations for setting up your Twitter hashtag

1. Set up a widget
2. Be prepared for time commitment – students value fast and concise responses
3. Useful for more challenging subjects
4. 140 character limit – long answers not possible
5. More favoured by school leaver age group rather than slightly older students
6. Be aware of setting professionalism standards from the start

# Any Questions?

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